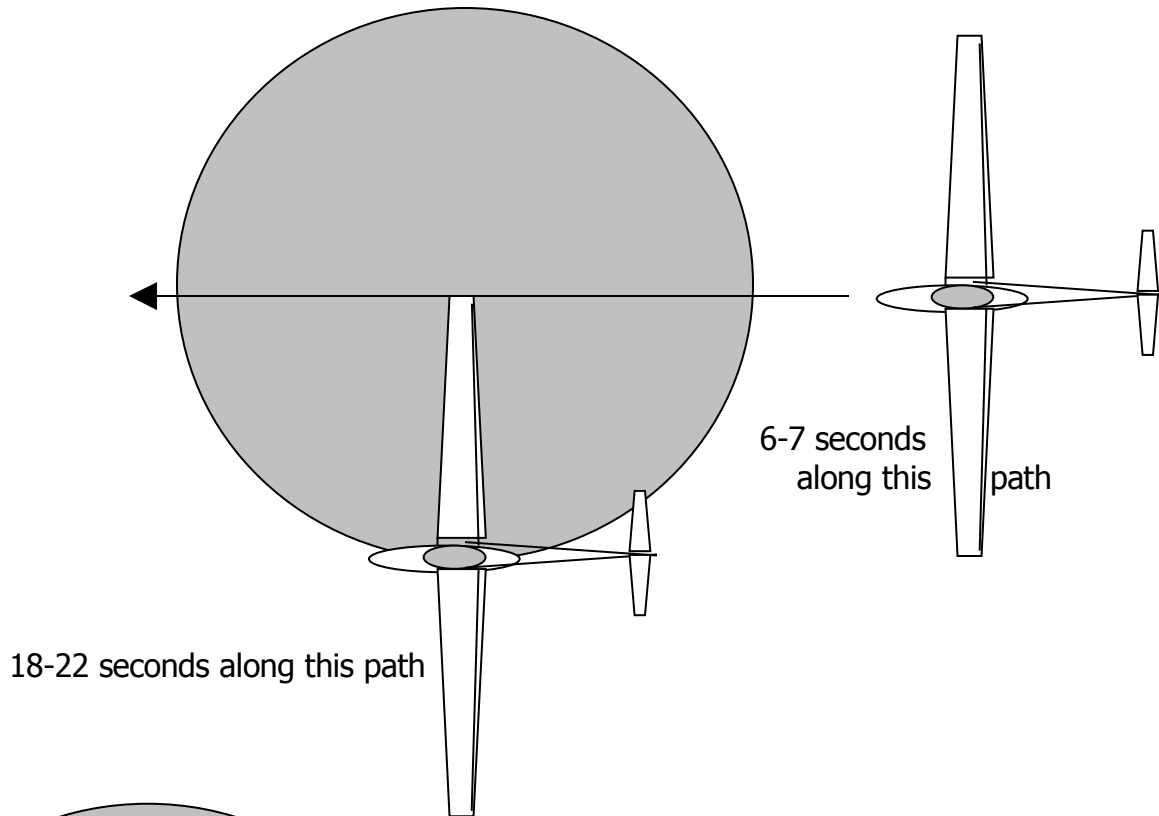


## When to Turn?

A normal thermal turn takes between 18 and 22 seconds to fly a complete circle, so it would take between 6 and 7 seconds to fly across the circle along a diameter. For us to make use of a thermal it must be large enough to allow for most or all of a thermal turn to fit inside it.

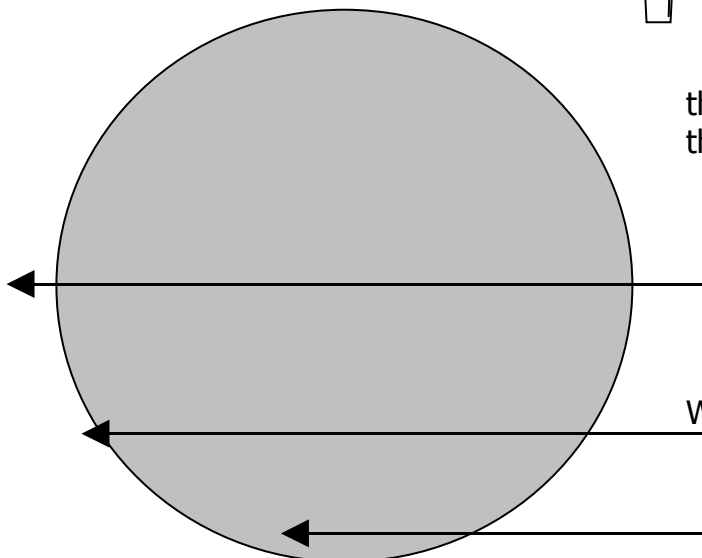


Of course, when we contact a thermal, there is no guarantee that we will fly through the center of it...

We might get lucky and hit it "dead on" like this

We might hit it here

and we might just barely bump into it.



Of course, if we just barely bump into it, we'll experience lift for only a brief period of time. Conversely, when we experience lift for just a brief period of time, maybe we've just nudged a good thermal—and maybe we've just hit a gust that really doesn't mean anything. So, how to tell the difference?

The short answer is, don't bother!

Assuming that a usable thermal has a diameter large enough to fit our normal thermal turn inside it, and given that we can't always count on striking the thermal dead on, we can make the assumption that any thermal that lasts more than 3 seconds is probably large enough for us to use. Any thermal encounter that is more brief than this is likely to be nothing more than a gust. So, to begin to answer the question, "When to turn?" we can start by saying that we shouldn't turn until we've experienced a solid 3 seconds of lift.

Upon entering a thermal and encountering a solid lift indication--a bump in the seat of the pants, later confirmed by a good climb indication from the variometer--count 3 seconds. **While counting the 3 seconds:**

**decide which direction to turn**

**look around and clear the airspace in that direction**

**sweep the eyes directly ahead and get ready to fly an accurate turn**

**turn briskly and positively into the thermal**

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What about the question, "**When to get off tow?**"

Same idea, except the decision to pull the release is irreversible. So, we'll want to be more certain that the thermal into which we release is solid gold. To do this, follow exactly the same procedure—but **count 5 seconds** before releasing.

**Too many pilots decide, before they even take off, to release at some arbitrary altitude. They'll fly through a great thermal at 2500 feet, fly out of it at 2800 feet, then release in sink at 3000 feet—and turn around and try to find that thermal again. Good luck! A much better strategy is to set a "floor" altitude below which we won't release, then release in the first good thermal we encounter above that floor, during which we experience good lift for at least 5 seconds.**

Not only will the technique of releasing in the first good 5-sec thermal encountered after reaching your floor for the day save you money, it will also enable your buddies back on the ground to get airborne sooner, too—and you'll find it's easily the fastest, easiest way to get your flight off to a good start.

## When Not to Turn

Knowing when not to turn is as important as knowing when to turn.

**Don't turn** into a thermal until you've had good lift indications for at least 3 seconds.  
(**5 seconds** if you're trying to decide when to **release**.)

If you do begin a turn into lift, only to have that lift immediately fade away, simply roll back onto your original heading. Even if you've already turned through 60 degrees of heading change, by reversing your turn to roll back to your original heading, you'll still have made just 120 degrees of heading change—that's only 1/3 of a whole circle—AND avoided pointing your tail at your destination.

**When on an upwind heading**, don't turn into lift until the lift peaks.

When on an unwind heading and **concerned about safely reaching an airport** or other landout spot, be leery of turning at all! Just slow down and milk the lift without committing yourself to a turn that may well cost you altitude.

**Don't turn** if there isn't much altitude to be gained—  
--when you're close enough to cloud base that there isn't room to climb  
--when you're close enough to the top of convection.

**Don't turn** if there is reason to believe that the lift is organized along a line and will possibly improve as you continue. Hold your heading until the lift peaks, then turn to center the strongest lift.